

A NEW SPECIES OF *CHORISOSERRATA* ROTH (BLATTODEA, BLATTELLIDAE, PSEUDOPHYLLODROMIINAE) FROM CHINA

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Abstract A new cockroach species from China, named *Chorisoserrata brevicaudata* sp. nov., is described. A key to all known species of *Chorisoserrata* is given and a diagnosis of the genus is provided.

Key words Dictyoptera, Blattodea, Blattaria, Blattellidae, Pseudophyllodromiinae, *Chorisoserrata*, new species.

Introduction

The blattellid cockroach genus *Chorisoserrata* was established by Roth (1998) for *Chorisoneura sagittaria* Hanitsch, 1927 from Vietnam and *Chorisoneura apicalis* Hanitsch, 1929 from Indonesia. It can be distinguished from the related genus *Chorisoneura* Brunner, 1865 by characters such as symmetrical serrated tarsal claws, truncate vertex, the longer fourth maxillary palpomere compared with the fifth, and the unspecialized seventh abdominal tergum. In 2002 *Chorisoserrata jendeki* Vidlička was described from Laos, and in 2006 *Chorisoserrata biceps* was named from China by Wang, Zhang and Feng, bringing the total species in the genus to four. Three of the species (*C. apicalis*, *C. sagittaria*, and *C. biceps*) have a completely unspecialized seventh tergum, whereas *Chorisoserrata jendeki* has a very small and indistinct tergal gland (Vidlička, 2002). The presence of a tergal gland needs to be taken into account in the diagnosis of the genus.

In this paper we give a key to all known *Chorisoneura* and describe a new species from China which shows almost the same morphological characters as its close relatives such as the species from Laos. All type specimens are deposited in the Insect Collection, China Agricultural University (CAU).

Chorisoserrata Roth

Chorisoserrata Roth, 1998: 27.

Type species: *Chorisoneura apicalis* Hanitsch, 1929.

Generic diagnosis (mainly after Roth (1998)).

Head very flat (particularly on the vertex and occiput), eyes reduced, very wide apart, interocular vertex margin truncate or subtruncate (Figs 1, 2, 4); maxillary palpomeres 3 and 4 much longer than the fifth (Fig. 3). Tegmina lanceolate with a few sublongitudinal or longitudinal discoidal sectors. Hind wing with narrow costal area, costal and radial vein simple, medial vein subobsolete, cubitus vein with 1

or 2 concave branches that delimits the anterior margin of a small distinct apical triangle (Fig. 5). Fore femur with several stout spines about the middle following with one terminal spine, without piliform spinules (Fig. 6); pulvilli on some proximal tarsomeres or apparently absent, tarsal claws symmetrical, distinctly serrated (Fig. 7).

Male. Abdominal terga unspecialized or only the seventh tergum specialized. Supra-anal plate symmetrical; paraprocts similar simple plates (Fig. 8). Subgenital plate symmetrical (exposed portion); interstyler margin produced; styli similar, cylindrical, widely separated (Fig. 9). Genital hook on the right side, preapical incision absent (Fig. 13); in addition to a median phallomere is an elongate tapering filament (Fig. 11).

Distribution. Oriental Region (China; Vietnam, Laos, Indonesia).

Key to the species of *Chorisoserrata* (males).

1. Hind margin of supra-anal plate with a distinct U-shaped excavation; apex of interstyler margin rounded (Fig. 8) 2
Hind margin of supra-anal plate straight without a distinct U-shaped excavation; apex of interstyler margin subrectangular *Ch. sagittaria*
2. Rounded apex of interstyler margin with excavation (Fig. 8) ... 3
Rounded apex of interstyler margin without excavation *Ch. apicalis*
3. Abdominal tergum 7 specialized, with tergal gland in the middle ... *Ch. jendeki*
Abdominal tergum 7 unspecialized, without tergal gland in the middle 4
4. Median phallomere long and slender with rounded apex (Fig. 11), accessory median phallomere brushlike (Fig. 12) *Ch. brevicaudata* sp. nov.
Median phallomere long and curved with tapering apex, apex of accessory median phallomere with some teeth *Ch. biceps*

1 *Chorisoserrata apicalis* (Hanitsch, 1929)

Chorisoneura apicalis Hanitsch, 1929: 19.

Chorisoserrata apicalis Roth, 1998: 27.

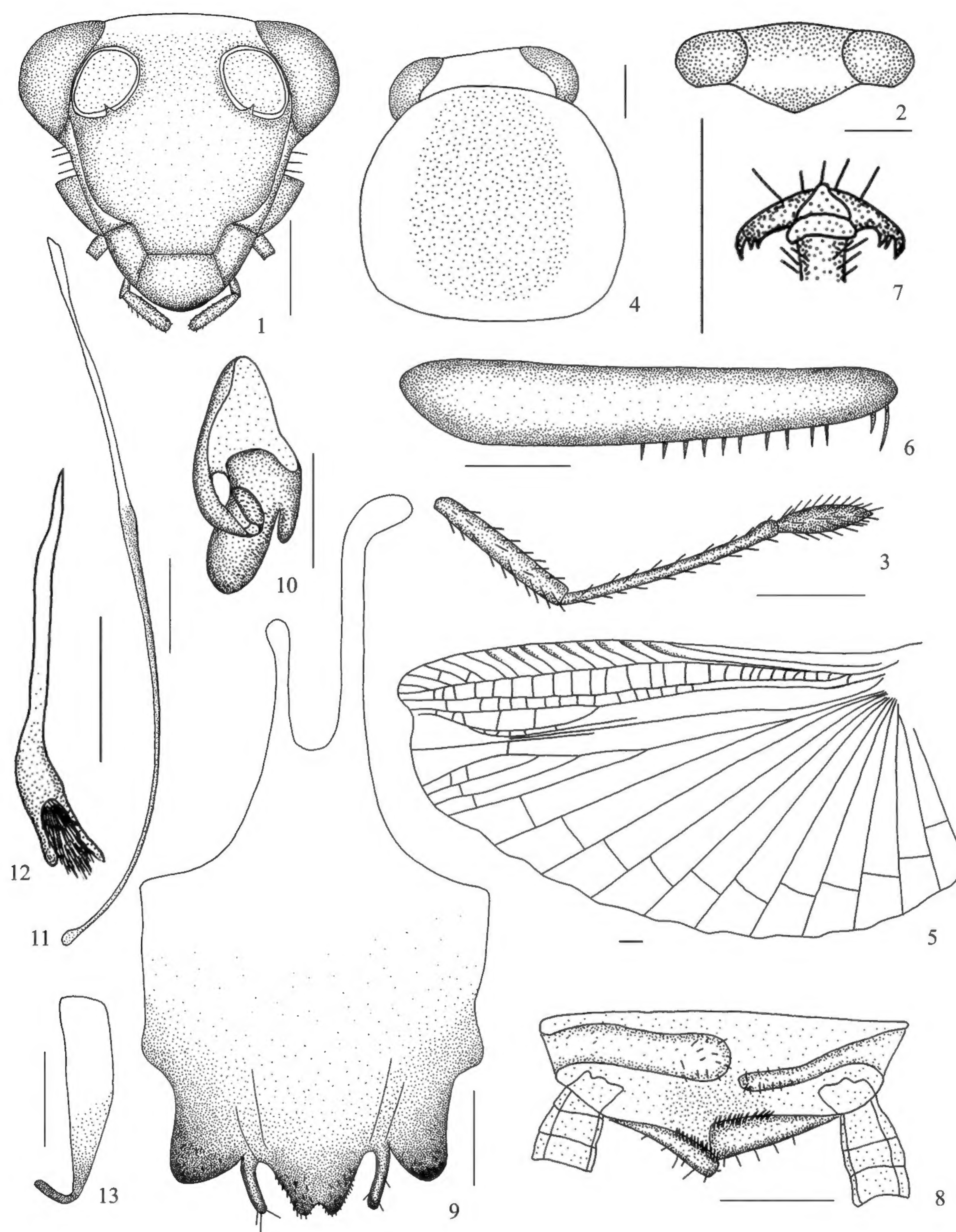
Specimen examined. None.

Distribution. Indonesia (Sumatra).

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Figs 1 – 13. *Chorisoserrata brevicaudata* sp. nov. 1. Head. 2. Vertex. 3. Maxillary palpomeres. 4. Head (part) and pronotum. 5. Wing. 6. Front femur. 7. Claw. 8. Supra-anal plate, ventral view. 9. Subgenital plate, dorsal view. 10. Left phallomere. 11. Median phallomere. 12. Accessory median phallomere. 13. Right phallomere. Scale bars = 0.5 mm.

2 *Chorisoserrata sagittaria* (Hanitsch, 1927)

Chorisoneura sagittaria Hanitsch, 1927: 27.

Chorisoserrata sagittaria Roth, 1998: 28.

Specimen examined. None.

Distribution. Vietnam.

3 *Chorisoserrata jendeki* Vidlička, 2002

Chorisoserrata jendeki Vidlička, 2002: 145.

Specimen examined. None.

Distribution. Laos.

4 *Chorisoserrata biceps* Wang, Zhang and Feng, 2006

Chorisoserrata biceps Wang, Zhang and Feng, 2006: 408.

Specimen examined. 1 ♂ (holotype), Mt. Diaoluo, Hainan Province, 29 Apr. 1985, coll. LI Wei-Hua. Paratypes: 1 ♂, 1 ♀, Mt. Diaoluo, Hainan Province, 28/29 Apr. 1985, coll. LI Wei-Hua and ZHANG Jing-Hong; 1 ♀, Mt. Pinglong, Fulong, Guangxi Zhuang Autonomous Region, 14 Mar. 1998, coll. WU Chun-Sheng; 1 ♂, Mt.

Jianfeng, Hainan Province, 28 July 1983, collector HUA Li-Zhong; 1 ♂, Mt. Jianfeng, Hainan Province, 26 Dec. 1981, coll. LIU Yuan-Fu.

Distribution. China (Hainan, Guangxi).

5 *Chorisoserrata brevicaudata* Wu and Wang, sp. nov. (Figs 1 – 13)

Description. Pronotum length \times width: 2.1 mm \times 2.0 mm (paratype female; length \times width: 2.0 mm \times 2.5 mm), tegmen length: 11.0 mm (paratype female; 12.0 mm), body length (including tegmen): 12.5 mm (paratype female; 13.0 mm).

Head exposed, very flat, distinctly trigonal (Figs 1, 2, 4); interocular vertex margin truncate (Fig. 2), vertex with interocular space greater than distance between antennal sockets (Fig. 1). Tegmina and wings fully developed extending beyond the end of the abdomen; tegmina narrow, lanceolate, with a few sublongitudinal discoidal sectors; hind wings with the costal vein area narrow, most of costal vein simple, clubbed, only two branches bifurcated; median vein simple, proximal part slightly curved, apical triangle small but distinct (Fig. 5). Anteroventral margin of the front femur with one terminal spine and several stout spines about the middle (Type C₁) (Fig. 6); pulvilli absent, tarsal claws symmetrical, distinctly serrated, arolia well developed (Fig. 7).

Male abdominal terga unspecialized. Supra-anal plate symmetrical, hind margin with a distinct U-shaped excavation, apical part upturned in ventral view, with some minute spines on distal margin (Fig. 8). Paraprocts dissimilar, simple plates, left one more robust than right one in ventral view (Fig. 8). Exposed portion of subgenital plate symmetrical, lateral corners produced and turned upwards, interstyler region produced, apex with one visible V-shaped excavation; styli small, cylindrical, widely separated; appendage apodemes dissimilar, right one longer and stouter than left one (Fig. 9). Hook on the right side (Fig. 13); median phallomere slender with rounded apex (Fig. 11), accessory median phallomere brush-like (Fig. 12); left phallomere short with a short finger-like protrusion, which apex round (Fig. 10).

Female. Similar to male, supra-anal plate

transverse, posterior margin with a U-shaped excavation. Subgenital plate broad, posterior margin round.

Holotype ♂, Mengla (21.4° N, 101.5° E; alt. 800 m), Menglun, Yunnan Province, 10 Apr. 1981, coll. LI Fa-Sheng. Paratype 1 ♀, same data as holotype.

Etymology. The scientific name of new species is derived from the Latin word “*brevi*” and “*cauda*”, which indicates that the finger-like protrusion of the left phallomere is short.

Remarks. This new species is similar to *Chorisoserrata jendeki* Vidlička from Laos, but can be distinguished from the latter by: 1) finger-like protrusion of left phallomere (Fig. 10) is short and with round apex; in *C. jendeki* it is long and with pointed apex; 2) apex of median phallomere rounded (Fig. 11); in *C. jendeki* it tapers; 3) accessory median phallomere brush-like, with many spines at apex (Fig. 12); in *C. jendeki* the distal part of the accessory median phallomere is broad and rounded, without spines; 4) abdominal tergum 7 unspecialized; whilst in *C. jendeki* it is specialized with an indistinct but visible tergal gland in the middle.

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锯爪蠨属一新种记述 (蜚蠨目, 姬蠨科, 伪姬蠨亚科)

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摘 要 记述我国锯爪蠨属 *Chorisoserrata* 1 新种, 即短尾锯爪蠨 *Chorisoserrata brevicaudata* sp. nov., 补充了该属的属征, 提供该属分种检索表。

短尾锯爪蠨, 新种 *Chorisoserrata brevicaudata* sp. nov. (图 1 ~ 13)

新种与 *Chorisoserrata jendeki* Vidlička 相似, 主要区别特征为: 1) 左阳茎指状凸起短且末端钝圆, 后者长且末端尖锐; 2) 中阳茎端部钝圆, 后者端部尖锐; 3) 中阳茎附属骨片刷

状, 端部具刺, 后者端部钝圆无刺; 4) 腹部第 7 背板不特化, 后者特化, 中部具不明显的腺体。

正模 ♂, 云南勐腊勐仑, 海拔 800 m, 1981-04-10, 李法圣采。副模 1 ♀, 云南勐腊勐仑, 海拔 800 m, 1981-04-10, 李法圣采。

词源: 新种种名源于拉丁词 *brevi* (短) 和 *cauda* (尾), 表示该种左阳茎指状凸起短小。

关键词 同翅目, 蜚蠨目, 姬蠨科, 伪姬蠨亚科, 锯爪蠨属, 新种。

中图分类号 Q969.252.1

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